

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A recording/reproducing apparatus for recording and reproducing information, said recording/reproducing apparatus comprising:

a ~~main~~ first stabilizing member ~~rotating a recordable disk having flexibility and~~ suppressing surface vibration of ~~the~~ a recordable flexible disk being rotated in at least [[in]] a vicinity of a recording/reproducing location by utilizing an aerodynamic effect; and

a recording/reproducing part conducting a recording and/or reproducing process at a reverse side being opposite to an action surface of an aerodynamic effect, the action surface being a main surface of the recordable flexible disk,

wherein ~~the a recordable disk~~ surface of the recordable flexible disk is divided into two regions by a first straight line being approached to a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk, and ~~an auxiliary~~ a second stabilizing member is arranged in at least one of the two regions so that a counterforce of the ~~recordable disk~~ surface of the recordable flexible disk is increased, in which the counterforce occurs when the ~~main~~ first stabilizing member is influenced by occurring an aerodynamic action force on the ~~recordable disk~~ surface of the recordable flexible disk at a location where the ~~main~~ first stabilizing member is located.

2. (Currently amended) The recording/reproducing apparatus as claimed in claim 1, wherein at least one ~~auxiliary~~ second stabilizing member is arranged in a region located at a downstream side in a disk rotational direction with respect to the recording/reproducing part, said region being one of the two regions.

3. (Currently amended) The recording/reproducing apparatus as claimed in claim 1, wherein at least one ~~auxiliary~~ second stabilizing member is arranged in a

region located at an upstream side in a disk rotational direction with respect to the recording/reproducing part, said region being one of the two regions.

4. (Currently amended) The recording/reproducing apparatus as claimed in claim 1, wherein at least one ~~auxiliary~~ second stabilizing member is arranged in each of the two regions, respectively.

5. (Currently amended) The recording/reproducing apparatus as claimed in claim 1, wherein in a case in that a rotation center part of the recordable flexible disk is held by a holding member, a location of an action point of a force of the ~~auxiliary~~ second stabilizing member against the recordable flexible disk is arranged in a region on a ~~recordable disk~~ surface of the recordable flexible disk,

wherein the region is sandwiched between a first perpendicular straight line at one side closer to the ~~main~~ first stabilizing member and a second perpendicular straight line at another side farther from the ~~main~~ first stabilizing member,

wherein the first and second perpendicular straight lines pass through two points, respectively, where the first straight line passing in the vicinity of the center of the recordable flexible disk crosses a circumferential part connecting fulcrum locations where flexibility starts when the ~~main~~ first stabilizing member is pressed and flexed to the recordable flexible disk, and the first and second perpendicular straight lines are perpendicular to the first straight line.

6. (Currently amended) The recording/reproducing apparatus as claimed in claim 4, wherein in a case in that a rotation center part of the recordable flexible disk is held by a holding member, a location of an action point of a force of the ~~auxiliary~~ second stabilizing member against the recordable flexible disk is arranged in a vicinity of the first perpendicular line in a region on a ~~recordable disk~~ surface of the recordable flexible disk,

wherein the region is sandwiched between the first perpendicular straight line at one side closer to the ~~main~~ first stabilizing member and the second perpendicular straight line at another side farther from the ~~main~~ first stabilizing member,

wherein the first and second perpendicular straight lines passing two points, respectively, where the first straight line passing in the vicinity of the center of the recordable flexible disk crosses a circumferential part connecting fulcrum locations where flexibility starts when the ~~main~~ first stabilizing member is pressed and flexed to the recordable flexible disk, and the first and second perpendicular straight lines are perpendicular to the first straight line.

7. (Currently amended) The recording/reproducing apparatus as claimed in claim 4, wherein at least two ~~auxiliary~~ second stabilizing members, in which at least one of the ~~auxiliary~~ second stabilizing members is located in each of the two regions, make a pair and an action point of a force of each of the ~~auxiliary~~ second stabilizing members against the recordable flexible disk is located on a parallel line being parallel to the first or second perpendicular straight line.

8. (Currently amended) The recording/reproducing apparatus as claimed in claim 7, wherein the action points are set so as to locate symmetrically on the ~~recordable disk surface~~ of the recordable flexible disk.

9. (Currently amended) The recording/reproducing apparatus as claimed in claim 1, wherein each of the ~~auxiliary~~ second stabilizing members is arranged to a chassis as a main body of the recording/reproducing apparatus.

10. (Currently amended) The recording/reproducing apparatus as claimed in claim 9, wherein a relative position between the ~~auxiliary~~ second stabilizing member and a holding member for holding a rotation center part of the recordable flexible disk is fixed.

11. (Currently amended) A recording/reproducing apparatus for recording and reproducing information, said recording/reproducing apparatus comprising:

a ~~main first~~ stabilizing member ~~rotating a recordable disk having flexibility and~~ suppressing surface vibration of ~~the~~ a recordable flexible disk being rotated ~~[[in]]~~ at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect; and

a recording/reproducing part conducting a recording and/or reproducing process at a reverse side being opposite to an action surface of an aerodynamic effect, the action surface being a main surface of the recordable flexible disk,

wherein a ~~recordable disk~~ surface of the recordable flexible disk is divided into two regions by a first straight line being approached to a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk, and ~~an auxiliary~~ a second stabilizing member is arranged in at least one of the two regions so that a counterforce of the ~~recordable disk~~ surface of the recordable flexible disk is increased, in which the counterforce occurs when the ~~main first~~ stabilizing member is influenced by occurring an aerodynamic action force on the ~~recordable disk~~ surface of the recordable flexible disk at a location where the ~~main first~~ stabilizing member is located,

wherein at least one ~~auxiliary second~~ stabilizing member is arranged in the two regions, respectively, and a counterforce received by the ~~auxiliary second~~ stabilizing member from the recordable flexible disk is greater than counterforces received by any other ~~auxiliary second~~ stabilizing member arranged in regions on the recordable flexible disk other than the ~~main first~~ stabilizing member.

12. (Currently amended) A disk cartridge for accommodating the recordable flexible disk ~~having flexibility~~ and provided with a mechanism for applying a ~~main first~~ stabilizing member for suppressing surface vibration of the recordable flexible disk at

least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect when the recordable flexible disk is rotated,

wherein a ~~recordable disk~~ surface of the recordable flexible disk is divided into two regions by a first straight line being approached to a movement line for a recording/reproducing part provided in a recording/reproducing apparatus side to scan and passing a vicinity of a center of the recordable flexible disk, and ~~an auxiliary a~~ second stabilizing member is arranged in at least one of the two regions so that a counterforce of the ~~recordable disk~~ surface of the recordable flexible disk is increased, in which the counterforce occurs when the ~~main~~ first stabilizing member is influenced by occurring an aerodynamic action force on the ~~recordable disk~~ surface of the recordable flexible disk at a location where the ~~main~~ first stabilizing member is located.

13. (Currently amended) The disk cartridge as claimed in claim 12, wherein the ~~auxiliary~~ second stabilizing member is mounted on an inside wall.

14. (Currently amended) The disk cartridge as claimed in claim 12, wherein a location of the ~~auxiliary~~ second stabilizing member is adjustable.

15. (Currently amended) A recording/reproducing apparatus for recording and/or reproducing information by rotating a recordable flexible disk ~~having flexibility~~, said recording/reproducing apparatus comprising:

a ~~main~~ first stabilizing member for suppressing surface vibration of the recordable flexible disk at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect; and

a recording/reproducing part for recording and/or reproducing information on a reverse side of an action surface of the aerodynamic effect by the ~~main~~ first stabilizing member,

wherein:

a ~~recordable disk~~ surface of the recordable flexible disk is divided into eight regions A, B, C, D, E, F, G, and H at approximately 45° intervals where a second straight line is defined as a starting point, the second straight line being approached to a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk;

the ~~main~~ first stabilizing member is arranged at a location corresponding to the second straight line; and

at least one action point of aerodynamic force is provided by the ~~auxiliary~~ second stabilizing member at each of portions where the recordable flexible disk provides the flexibility in the region B from approximately 45° to approximately 90° and the region C from approximately 90° and the region C from approximately 90° to approximately 135° with respect to the starting point.

16. (Currently amended) A recording/reproducing apparatus for recording and/or reproducing information by rotating a recordable flexible disk ~~having flexibility~~, said recording/reproducing apparatus comprising:

a ~~main~~ first stabilizing member for suppressing surface vibration of the recordable flexible disk at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect; and

a recording/reproducing part for recording and/or reproducing information on a reverse side of an action surface of the aerodynamic effect by the ~~main~~ first stabilizing member,

wherein:

a ~~recordable disk~~ surface of the recordable flexible disk is divided into eight regions A, B, C, D, E, F, G, and H at approximately 45° intervals where a second straight line is defined as a starting point, the second straight line being approached to

a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk;

the ~~main~~ first stabilizing member is arranged at a location corresponding to the second straight line; and

at least one action point of aerodynamic force is provided by the ~~auxiliary~~ second stabilizing member at each of portions where the recordable flexible disk provides the flexibility in the region F from approximately 225° to approximately 270° and in the region G from approximately 270° to approximately 315° with respect to the starting point.

17. (Currently amended) A recording/reproducing apparatus for recording and/or reproducing information by rotating a recordable flexible disk ~~having flexibility~~, said recording/reproducing apparatus comprising:

a ~~main~~ first stabilizing member for suppressing surface vibration of the recordable flexible disk at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect; and

a recording/reproducing part for recording and/or reproducing information on a reverse side of an action surface of the aerodynamic effect by the ~~main~~ first stabilizing member,

wherein:

a ~~recordable disk~~ surface of the recordable flexible disk is divided into eight regions A, B, C, D, E, F, G, and H at approximately 45° intervals where a second straight line is defined as a starting point, the second straight line being approached to a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk;

the ~~main~~ first stabilizing member is arranged at a location corresponding to the second straight line; and

at least one action point of aerodynamic force is provided by the ~~auxiliary~~ second stabilizing member at each of portions where the recordable flexible disk provides the flexibility in the region B from approximately 45° to approximately 90°, in the region C from approximately 90° to approximately 135°, the region F from approximately 225° to approximately 270° with respect to the starting point, and the region G from approximately 270° to approximately 315° with respect to the starting point.

18. (Currently amended) The recording/reproducing apparatus as claimed in claim 15, wherein the action point of the aerodynamic force of the ~~auxiliary~~ second stabilizing member that exists in the region B is arranged at a vicinity of a boundary between the region A from the starting point to approximately 45° and the region B.

19. (Currently amended) The recording/reproducing apparatus as claimed in claim 16, wherein the action point of the aerodynamic force of the ~~auxiliary~~ second stabilizing member that exists in the region G is arranged at a vicinity of a boundary between the region H from the starting point to approximately 315° and the region G.

20. (Currently amended) The recording/reproducing apparatus as claimed in claim 17, wherein the action point of the aerodynamic force of the ~~auxiliary~~ second stabilizing member that exists in the region B is arranged in the region A from the starting point to approximately 45° and the region B, and the action point of the aerodynamic force of the ~~auxiliary~~ second stabilizing member that exists in the region G is arranged at a vicinity of a boundary between the region H from the starting point to approximately 315° and the region G.

21. (Currently amended) The recording/reproducing apparatus as claimed in claim 17, wherein the action point of the aerodynamic force of the ~~auxiliary~~ second

stabilizing member that exists in the region B and the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region G are symmetrically arranged so as to sandwich the second straight line.

22. (Currently amended) The recording/reproducing apparatus as claimed in claim 17, wherein the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region C and the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region F are symmetrically arranged so as to sandwich the second straight line.

23. (Currently amended) The recording/reproducing apparatus as claimed in claim 15, wherein the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region B and the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region C are arranged so that a straight line connecting the action points in the regions B and C is set to be parallel to the second straight line.

24. (Currently amended) The recording/reproducing apparatus as claimed in claim 16, wherein the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region F and the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region G are arranged so that a straight line connecting the action points in the regions F and G is set to be parallel to the second straight line.

25. (Currently amended) The recording/reproducing apparatus as claimed in claim 17, wherein the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region B and the action point of the aerodynamic force of the auxiliary second stabilizing member that exists in the region C are arranged so that one straight line connecting the action points in the regions B and C is set to be parallel to the second straight line, and the action point of the aerodynamic force of the

~~auxiliary second~~ stabilizing member that exists in the region F and the action point of the aerodynamic force of the ~~auxiliary second~~ stabilizing member that exists in the region G are arranged so that another straight one connecting the action points in the regions F and G is set to be parallel to the second straight line.

26. (Currently amended) The recording/reproducing apparatus as claimed in claim 15, wherein an approximate line of a movement line in the disk radial direction of the recording/reproducing apparatus in an actual recording/reproducing region on the ~~recordable disk~~ surface of the recordable flexible disk is defined as the second straight line.

27. (Currently amended) The recording/reproducing apparatus as claimed in claim 15, wherein the ~~auxiliary second~~ stabilizing members are mounted in a chassis of a main body of the recording/reproducing apparatus.

28. (Currently amended) The recording/reproducing apparatus as claimed in claim 27, wherein a relative location between the ~~auxiliary second~~ stabilizing members and a holding member for holding a rotation center portion of the recordable flexible disk is fixed.

29. (Currently amended) The recording/reproducing apparatus as claimed in any one of claims 15, 16, and 17, wherein other ~~auxiliary second~~ stabilizing members other than the ~~auxiliary second~~ stabilizing members are arranged and counterforces received from the ~~auxiliary second~~ stabilizing members are maximized in said other ~~auxiliary second~~ stabilizing members arranged in any of the regions A, B, C, D, E, F, G, and H other than the ~~main first~~ stabilizing member.

30. (Currently amended) A disk cartridge for accommodating the recordable flexible disk ~~having flexibility and~~ provided with a mechanism for applying a ~~main first~~ stabilizing member for suppressing surface vibration of the recordable flexible disk at

least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect when the recordable flexible disk is rotated,

wherein:

a ~~recordable disk~~ surface of the recordable flexible disk is divided into eight regions A, B, C, D, E, F, G, and H at approximately 45° intervals where a second straight line is defined as a starting point, the second straight line being approached to a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk;

the ~~main~~ first stabilizing member is arranged at a location corresponding to the movement line; and

at least one action point of aerodynamic force is provided by the ~~auxiliary~~ second stabilizing member at each of portions where the recordable flexible disk provides the flexibility in the region B from approximately 45° to approximately 90° and the region C from approximately 90° to approximately 135° with respect to the starting point.

31. (Currently amended) The disk cartridge as claimed in claim 30, wherein the ~~auxiliary~~ second stabilizing members are mounted on an inside wall of the disk cartridge.

32. (Currently amended) The disk cartridge as claimed in claim 30, wherein locations of the ~~auxiliary~~ second stabilizing members are adjustable.

33. (Currently amended) A recording/reproducing apparatus for recording and/or reproducing information by rotating a recordable flexible disk ~~having flexibility~~, said recording/reproducing apparatus comprising:

a ~~main~~ first stabilizing member for suppressing surface vibration of the recordable flexible disk at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect; and

a recording/reproducing part for recording and/or reproducing information on a reverse side of an action surface of the aerodynamic effect by the ~~main~~ first stabilizing member,

wherein the ~~recordable disk~~ surface of the recordable flexible disk is divided into two regions by a first straight line being approached to a movement line for the recording/reproducing part to scan and passing a vicinity of a center of the recordable flexible disk, and ~~an auxiliary~~ a second stabilizing member is arranged in at least one of the two regions so that a counterforce of the ~~recordable disk~~ surface of the recordable flexible disk is increased, in which the counterforce occurs when the ~~main~~ first stabilizing member is influenced by occurring an aerodynamic action force on the ~~recordable disk~~ surface of the recordable flexible disk at a location where the ~~main~~ first stabilizing member is located, and further the ~~main~~ first stabilizing member is extended by facing the movement line for the recording/reproducing part to scan in a disk radial direction.

34. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein at least one ~~auxiliary~~ second stabilizing member is arranged in a region located at a downstream side in a disk rotational direction with respect to the recording/reproducing part, said region being one of the two regions.

35. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein at least one ~~auxiliary~~ second stabilizing member is arranged in a region located at an upstream side in a disk rotational direction with respect to the recording/reproducing part, said region being one of the two regions.

36. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein at least one ~~auxiliary~~ second stabilizing member is arranged in each of the two regions, respectively.

37. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein in a case in that a rotation center part of the recordable flexible disk is held by a holding member, a location of an action point of a force of the ~~auxiliary~~ second stabilizing member against the recordable flexible disk is arranged in a region on a ~~recordable disk~~ surface of the recordable flexible disk,

wherein the region is sandwiched between the first perpendicular straight line at one side closer to the ~~main~~ first stabilizing member and the second perpendicular straight line at another side farther from the ~~main~~ first stabilizing member,

wherein the first and second perpendicular straight lines passing two points, respectively, where the first straight line passing in the vicinity of the center of the recordable flexible disk crosses a circumferential part connecting fulcrum locations where flexibility starts when the ~~main~~ first stabilizing member is pressed and flexed to the recordable flexible disk, and the first and second perpendicular straight lines are perpendicular to the first straight line.

38. (Currently amended) The recording/reproducing apparatus as claimed in claim 36, wherein in a case in that a rotation center part of the recordable flexible disk is held by a holding member, a location of an action point of a force of the ~~auxiliary~~ second stabilizing member against the recordable flexible disk is arranged in a vicinity of the first perpendicular line in a region on a ~~recordable disk~~ surface of the recordable flexible disk,

wherein the region is sandwiched between the first perpendicular straight line at one side closer to the ~~main~~ first stabilizing member and the second perpendicular straight line at another side farther from the ~~main~~ first stabilizing member,

wherein the first and second perpendicular straight lines passing two points, respectively, where the first straight line passing in the vicinity of the center of the recordable flexible disk crosses a circumferential part connecting fulcrum locations where flexibility starts when the ~~main~~ first stabilizing member is pressed and flexed to the recordable flexible disk, and the first and second perpendicular straight lines are perpendicular to the first straight line.

39. (Currently amended) The recording/reproducing apparatus as claimed in claim 36, wherein at least two ~~auxiliary~~ second stabilizing members, in which at least one of the auxiliary stabilizing members is located in each of the two regions, make a pair and an action point of a force of each of the ~~auxiliary~~ second stabilizing members against the recordable flexible disk is located on a parallel line being parallel to the first or second perpendicular straight line.

40. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein each of the ~~auxiliary~~ second stabilizing members is arranged to a chassis as a main body of the recording/reproducing apparatus.

41. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein a curvature radius, in which a shape in a disk circumferential direction on a surface of the ~~main~~ first stabilizing member facing the recordable flexible disk is formed so as to be an approximate circular, is set to be smaller from a disk inside perimeter to a disk outside perimeter.

42. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein an effective region width of the ~~main~~ first stabilizing member in a disk circumferential direction is set to be smaller from a disk inside perimeter to a disk outside perimeter.

43. (Currently amended) The recording/reproducing apparatus as claimed in claim 33, wherein a curvature radius, in which a shape in a disk circumferential

direction on a surface of the ~~main~~ first stabilizing member facing the recordable flexible disk is formed so as to be an approximate circular, is set to be smaller from a disk inside perimeter to a disk outside perimeter and an effective region width of the ~~main~~ first stabilizing member in a disk circumferential direction is set to be smaller from a disk inside perimeter to a disk outside perimeter.

44. (Currently amended) A disk cartridge for accommodating a recordable flexible disk ~~having flexibility~~, comprising:

a ~~main~~ first stabilizing member for suppressing surface vibration of the recordable flexible disk at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect when the recordable flexible disk is rotated; and

at least one ~~auxiliary~~ second stabilizing member occurring an action force facing the ~~main~~ first stabilizing member on the ~~recordable disk~~ surface of the recordable flexible disk where the ~~main~~ first stabilizing member is located by occurring an aerodynamic action force at least one of two regions into which the ~~recordable disk~~ surface of the recordable flexible disk is divided by a first straight line being approached to a movement line for a recording/reproducing part provided in a recording/reproducing apparatus side to scan and passing a vicinity of a center of the recordable flexible disk,

wherein the ~~main~~ first stabilizing member is mounted on an inside wall of said disk cartridge so as to extend by facing the movement for the recording/reproducing part to scan in a disk radial direction.

45. (Currently amended) A disk cartridge for accommodating a recordable flexible disk ~~having flexibility~~, comprising a ~~main~~ first stabilizing member extending by facing a movement for the recording/reproducing part to scan in a disk radial direction and suppressing surface vibration of the recordable flexible disk at least in a vicinity of

a recording/reproducing location by utilizing an aerodynamic effect when the recordable flexible disk is rotated,

wherein a ~~recordable disk~~ surface of the recordable flexible disk is divided into two regions by a first straight line being approached to a movement line for a recording/reproducing part provided in a recording/reproducing apparatus side to scan and passing a vicinity of a center of the recordable flexible disk, and an ~~auxiliary~~ a second stabilizing member is mounted on an inside wall of said disk cartridge so that a counterforce of the ~~recordable disk~~ surface of the recordable flexible disk is increased, in which the counterforce occurs when the ~~main~~ first stabilizing member is influenced by occurring an aerodynamic action force toward at least one of the two regions on the ~~recordable disk~~ surface of the recordable flexible disk at a location where the ~~main~~ first stabilizing member is located.

46. (Currently amended) A disk cartridge for accommodating a recordable flexible disk ~~having flexibility~~, comprising a ~~main~~ first stabilizing member suppressing surface vibration of the recordable flexible disk at least in a vicinity of a recording/reproducing location by utilizing an aerodynamic effect when the recordable flexible disk is rotated,

wherein the ~~main~~ first stabilizing member is mounted on an inside wall of said disk cartridge so as to extend by facing a movement for the recording/reproducing part to scan in a disk radial direction, and

a ~~recordable disk~~ surface of the recordable flexible disk is divided into two regions by a first straight line being approached to a movement line for a recording/reproducing part provided in a recording/reproducing apparatus side to scan and passing a vicinity of a center of the recordable flexible disk, and an ~~auxiliary~~ a second stabilizing member is mounted on an inside wall of said disk cartridge so that a counterforce of the recordable disk cartridge so that a counterforce of the ~~recordable~~

~~disk~~ surface of the recordable flexible disk is increased, in which the counterforce occurs when the ~~main~~ first stabilizing member is influenced by occurring an aerodynamic action force toward at least one of the two regions on the ~~recordable disk~~ surface of the recordable flexible disk at a location where the ~~main~~ first stabilizing member is located.

47. (Currently amended) The disk cartridge as claimed in claim 44, wherein location of the ~~main~~ first stabilizing member and the ~~auxiliary~~ second stabilizing member are adjustable.